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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,489	03/16/2004	Fernando Oliveira	EMS-07301	3655
52427	7590	10/25/2006		
MUIRHEAD AND SATURNELLI, LLC 200 FRIBERG PARKWAY, SUITE 1001 WESTBOROUGH, MA 01581			EXAMINER NGUYEN, THAN VINH	
			ART UNIT	PAPER NUMBER
			2187	

DATE MAILED: 10/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/802,489

Applicant(s)

OLIVEIRA ET AL.

Examiner

Than Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3,6-9,15,20,21,27,28,31,34-36,43,51 and 52 is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,10-14,16-19,22-26,29,30,32,33,37-42 and 44-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. This is a response to the amendment, filed 8/14/06.
2. Claims 1-52 are pending.

***Claim Rejections - 35 USC § 112***

3. Claim 37 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear as what "uct" (line 1) means. This term is not in the previous claim version and there is no indication (markings) that this term is being added to this claim. Applicant should remove this language or provide a proper amendment to introduce this language into the specification/claim. Appropriate correction is required.

***Response to Amendment/Arguments***

4. Applicant has amended claims 3,6-9,15,20,21,31,34-37, and 43 to include allowable subject matter indicated in the previous office action. Accordingly, these claims are now allowable.
5. Claims 27-18 and 51-52 were previously allowed.
6. Applicant has also amended claims 29-52 to overcome the previous rejection to these claims under 35 USC 101. Accordingly, the rejection to these claims under 35 USC 101 is withdrawn.
7. As for rejected independent claims 1,18,22,29, and 46 Applicant argues that Farmer does not teach journaling the write requests in one of a plurality of partial journals, wherein each of the plurality of partial journals is used to journal a portion of write requests received from a

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“different” source. The Examiner disagrees. Farmer teaches journaling write commands requests (1/35-40) to create virtual views of the data (4/50-65). Each of the journaled write requests represent a particular view of the data at a point-in-time. Thus, the Examiner maintains that Farmer teaches journaling a plurality of journals associated with write requests. The previous rejections to claims 1,2,4,5,10-14,16-19,22-26,29,30,32,33,38-42,44,45, and 46-50 are maintained.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1,2,4,5,10-14,18,19,22-26,29,30,32,33,38-42,46-50 are rejected under 35

U.S.C. 102(e) as being anticipated by Farmer et al (US 7,007,043).

As to claim 1,22,29,46:

10. Farmer teaches a storage backup system that uses journaling. Farmer teaches the claimed method for providing a backup copy comprising:

receiving a write request (capture write commands; 2/53);

receiving data (3/30-60);

journaling said write request in one of a plurality of journals, each partial journals journal a write request of a different source (record and track journals; 1/35-40; 2/55-56; 4/24-27,50-65); and

updating said primary storage in accordance with the write request (update/write to primary storage; 3/5-15).

As to claim 2,25,26,30,49,50:

11. Farmer teaches receiving partial journals having partial journal entries; merging the partial journal entries in accordance with a predetermined merging time period forming a merged partial journal entry for a particular storage location, said merged partial journal entry reflecting application of data modifications for the particular storage location for the predetermined merging time period (reconstruct a particular point-in-time snapshot from stored logs/journals; 4/40-65).

As to claim 4,23,32,47:

12. Farmer teaches each partial journal entry includes a time stamp (abstract; 8/45-47).

As to claim 5,24,33,48:

13. Farmer teaches periodically flushing the journals to a primary journal (write to primary journal; 4/30-31).

As to claim 10,38:

14. Farmer teaches the write request is made with respect to a copy of data included on the primary storage (2/53-56; 3/5-10).

As to claim 11,39:

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15. Farmer teaches the primary storage is **one of**: a physical device, logical device, virtual device, and a portion of one or more different devices (3/5-60).

As to claim 12-14,40-42:

16. Farmer teaches each time stamp value is obtained using a phase lock loop processing technique and using actual time values (storing time stamp; Abstract; 3/30-35; 5/5/25; 6/57; Claim 1).

As to claim 18:

17. Farmer teaches a system comprising:  
a switch including input ports (point of data entry/input; server/administrator 408; Fig. 4);  
a plurality of partial journals (partial log/journals; 1/35-40; 2/55-56; 4/24-27,50-65);  
a primary journal incorporating portions of the partial journals (merged journal from reconstruction of a particular point-in-time snapshot from stored logs/journals; 4/40-65).

As to claim 19:

18. Farmer teaches a time base (storing journal/log time; abstract; 8/45-47).

***Claim Rejections - 35 USC § 103***

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 16,17,44,45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farmer et al (US 7,007,043).

As to claim 16,17,44,45:

21. Farmer does not specifically disclose the journal and updating are simultaneous and each journal entry includes a validity status. It is well-known in the art to perform functions simultaneously to get the fastest performance and data would be synchronized. One of ordinary skills in the art would readily recognize that simultaneously storing the journal and updating the primary storage would ensure the data in the journal and primary storage are synchronized, ensuring the most accurate and point-in-time snapshot. One skilled in the art would also recognize the importance of having a status of the journal and updating operation to indicate whether it has been completed. Thus, it would have been obvious to one of ordinary skills to performing the journaling and updating simultaneously and use status indicators so that the journal and primary storage are completed and contain the most accurate and synchronized point-in-time snapshot.

***Allowable Subject Matter***

22. Claims 3,6-9,15,20,21,27,28,31,34-36,43,51, and 52 are allowed for reasons indicated above and in the previous office action.

23. Claim37 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Than Nguyen whose telephone number is 571-272-4198. The examiner can normally be reached on 8am-3pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Than Nguyen



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Primary Examiner  
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